

ABSTRACT

[0076] Reactive atom plasma processing can be used to shape, polish, planarize, and clean surfaces of difficult materials with minimal subsurface damage. The apparatus and methods use a plasma torch, such as a conventional ICP torch. The workpiece and plasma torch are moved with respect to each other, whether by translating and/or rotating the workpiece, the plasma, or both. The plasma discharge from the torch can be used to shape, planarize, polish, clean and/or deposit material on the surface of the workpiece, as well as to thin the workpiece. The processing may cause minimal or no damage to the workpiece underneath the surface, and may involve removing material from, and/or redistributing material on, the surface of the workpiece.

[0077] This description is not intended to be a complete description of, or limit the scope of, the invention. Other features, aspects, and objects of the invention can be obtained from a review of the specification, the figures, and the claims.